STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

August 18, 1982

Mr. Harold Kobayashi
3301 Lone Mountain Drive, Apt. 64
Carson City, Nevada 89701

RE: Bond Estimates
Westwater Humus Mines
ACT/019/012
Grand County, Utah

Dear Mr. Kobayaski:

I enclosed a copy of the bond estimate you submitted to our Division. During our telephone conversation today, you said that you could detail how you formulated these costs. Your timely assistance in describing how you arrived at these costs is appreciated.

Thank you.

Sincerely,

PAM GRUBAUGH-LITTIG
RECLAMATION ENGINEER

PG-L:btb

Enclosure

cc: Sue Linner, DOGM

WESTWATER. INC.
P.O. BOX 15, HAWTHORNE, NV. 89415 TELEPHONE (702) 945-2829

No. 27 A,B,C,D,E,G.

In following the typical cut and fill method diagram (attachment 4-C), the use of equipment time is very essential in minimizing costs. Since the cutting and stockpiling of shale material is not necessary for this type operation, bulldozer time can be utilized for partial reclamation work of the area in question, progressively. The cost of reclamation work will be much higher should say, 15 acres of shale material was removed from a designated area and reclamation work were to commence. It is our intention to make partial reclamation as we go along and by this method, the operator cost of the equipment could be allocated to a per day cost of the operator/equipment. We intend to follow this format to minimize unsightly and massive cuts into the hillside.

We believe that by carefully laying out the area for the overburden storage in conjunction with the depth of the cut below grade to take in the overburden will create a fluid flow of events and at the same time minimizing the long distance hauling of the fill material.

An allocation of 15¢ per ton of shale removed shall be put into a reserve account for this purpose. Since the majority of the shale to be mined is above finish grade of a minimum of ten feet, there will be months of mining and removing the shale prior to reaching the base where reclamation is to be applied. Consequently, the time lag will be many months away re reclamation work from the inception of mining.

Once the shale has been removed and the overburden put in place, with the shale and top soil mix, seed will be sprayed over it and water will be applied via water truck. Again, this will be done incrementally with the proper use of equipment and operator time considered.

The cost of seeding together with the preparation of the land and watering should cost approximately as follows:

Per acre:	Grading cost	$ 1,500
	Seeding	200
	Watering	700
		$ 2,700.
	15 acre increment	15
	Estimated cost	$36,000

Average depth 10' x 15 ac. = 242,000 yds
.15
Reserve account $36,300